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1. (Currently Amended) A method of altering the substrate specificity of a phosphoinositide-dependent protein kinase 1 (PDK1) wherein said PDK1 is exposed to an interacting polypeptide which comprises the amino acid sequence SEQ ID NO:25 ~~Phe/Tyr-Xaa-Xaa-Phe/Tyr-Zaa-Phe/Tyr~~ wherein ~~Zaa~~ represents a negatively charged amino acid residue.

2. - 3. (Canceled)

4. (Currently Amended) A method of phosphorylating a residue corresponding to the italicized residue in a substrate polypeptide with an amino acid sequence corresponding to the consensus sequence SEQ ID NO:30: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Ser/Thr-Phe/Tyr wherein the method comprises:

providing a PDK1;

providing an interacting polypeptide which comprises SEQ ID NO:25; and

contacting the substrate polypeptide is exposed to (1) a preparation comprising with a the PDK1 and an the interacting polypeptide in a manner effective to phosphorylate the residue of the substrate polypeptide which comprises the amino acid sequence SEQ ID NO:25: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Zaa-Phe/Tyr or (2) a PDK1 having altered substrate specificity wherein the PDK1 having altered substrate specificity is provided by exposing PDK1 to the interacting polypeptide wherein Zaa represents a negatively charged amino acid residue.

5. (Previously Presented) A method of phosphorylating a protein kinase C-related protein kinase-2 (PRK2) wherein said PRK2 is exposed to PDK1.

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6. - 11. (Canceled)

12. (Currently Amended) A method of altering the substrate specificity of phosphoinositide-dependent protein kinase 1 (PDK1) comprising: wherein said PDK1 is exposed to a compound identified by a method which comprises measuring the ability of the a compound to increase the ability of PDK1 to phosphorylate a residue corresponding to the italicized residue in a polypeptide with an amino acid sequence corresponding to the consensus sequence SEQ ID NO: 30: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Ser/Thr-Phe/Tyr and exposing the PDK1 to the compound in a manner effective to alter the substrate specificity of the PDK1.

13. - 22. (Canceled)

23. (Previously Presented) A method according to claim 1 wherein said PDK1 is exposed to said interacting polypeptide in a cell, said cell comprising a recombinant nucleic acid suitable for expressing PDK1 and a recombinant nucleic acid suitable for expressing said interacting polypeptide .

24. - 51. (Canceled)

52. (New) A method according to claim 5, wherein said PRK2 is exposed to said PDK1 in vitro.

53. (New) A method according to claim 5 wherein said method comprises:

contacting said PRK2 with said PDK1 in a manner effective to phosphorylate said PRK2 and
determining that said PRK2 is phosphorylated.

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